



# BISHOP JEROME INSTITUTE

A CENTRE OF EXCELLENCE IN PROFESSIONAL EDUCATION OF THE CATHOLIC DIOCESS OF QUILON



WELCOME TO COMPUTER SCIENCE AND ENGINEERING

## Bizzbits!

CSE Department Newsletter Series



### INSTITUTION VISION

To produce technical professionals with surpassing integrity who will pioneer social transformation for a brighter world.



### INSTITUTION MISSION

To provide competent Technical Education at University Level to all deserving students beyond borders, irrespective of caste, creed and religion and use the transformative power of education to mould them as socially responsible professionals.

## DEPARTMENT VISION

To create skilled professionals in Computer Science and Engineering with expertise in software, research, and ethics to meet industry and societal needs.



## DEPARTMENT MISSION

- To Keep up with cutting-edge technologies and ensure industry ready graduates
- To Collaborate with renowned institutions enhances the research activities, providing wide range perspectives and resources.
- To emphasize societal and ethical responsibilities is crucial for producing well-rounded professionals

## ABOUT THE DEPARTMENT

The Computer Science and Engineering program provides a comprehensive academic curriculum that integrates various disciplines with a focus on social and environmental significance. The fundamental courses in the curriculum equip students with technical proficiency, while the optional courses enable them to specialize in a specific field, fostering the development of innovative ideas, projects, models, and systems. Additionally, these courses emphasize the importance of ethics and human values, instilling a sense of responsibility in the students.



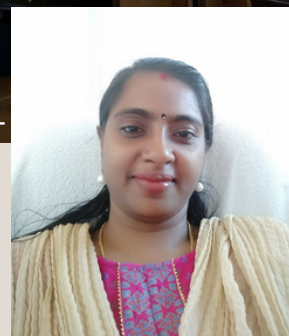
To ensure the holistic development of our students, the Department is equipped with adequate infrastructure to support academic, research, and extra-curricular activities. Our faculty members are highly qualified, skilled, and experienced, providing valuable guidance to our students. Additionally, the department regularly organizes workshops, invited talks, and seminars for the benefit of both students and faculty.

Throughout the semester, special assistance is provided to students in the form of technical training, soft skills development, and aptitude enhancement. This comprehensive support aims to equip our students with the necessary skills and knowledge to excel in their chosen field.





Deepa Rajan S, Associate Professor:-



### **HOD'S DESK**

It is with great pleasure that I announce the release of the Department of Computer Science and Engineering Newsletter for the first semester of the academic year 2023-24. This newsletter highlights the numerous activities and accomplishments of both our esteemed faculty and talented students. Our department is committed to nurturing confident professionals who are well-prepared for the dynamic working environment. We provide an exceptional academic atmosphere, supported by a team of highly qualified faculty members who inspire our students to enhance their technical abilities and foster a strong sense of teamwork



## DEPARTMENT ACTIVITIES

On 13-10-2023, the Department of Computer Science and Engineering organized the inauguration program for the association. The association, named Techsavantz, had its logo unveiled by our esteemed Manager, Benjamin Palliyadil. Additionally, the Media Club and Social Media Club were inaugurated by Principal Dr. D Roshan Kumar. Technical talk and Technical events also organised.

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## MoU with Shristi Innovative, Technopark, Trivandrum

In presence of Dr. Roshan Kumar (Principal BJI), Mrs. Deepa Rajan (HoD CSE), Mr. Bibi Philip (PRO & TI ECE, BJI), Monisha H Chandran (Centre Manager, Srishti innovations), Aarthi Asokhan, Marketing Manager Srishti innovations), Erfana Shiras, (Sales Enhancement Officer, Srishti innovations).



**1 WEEK INTERNSHIP AT SRISHTI**  
 Students had a great time interacting with one of the top companies in technopark. They had various activities conducted during the internship



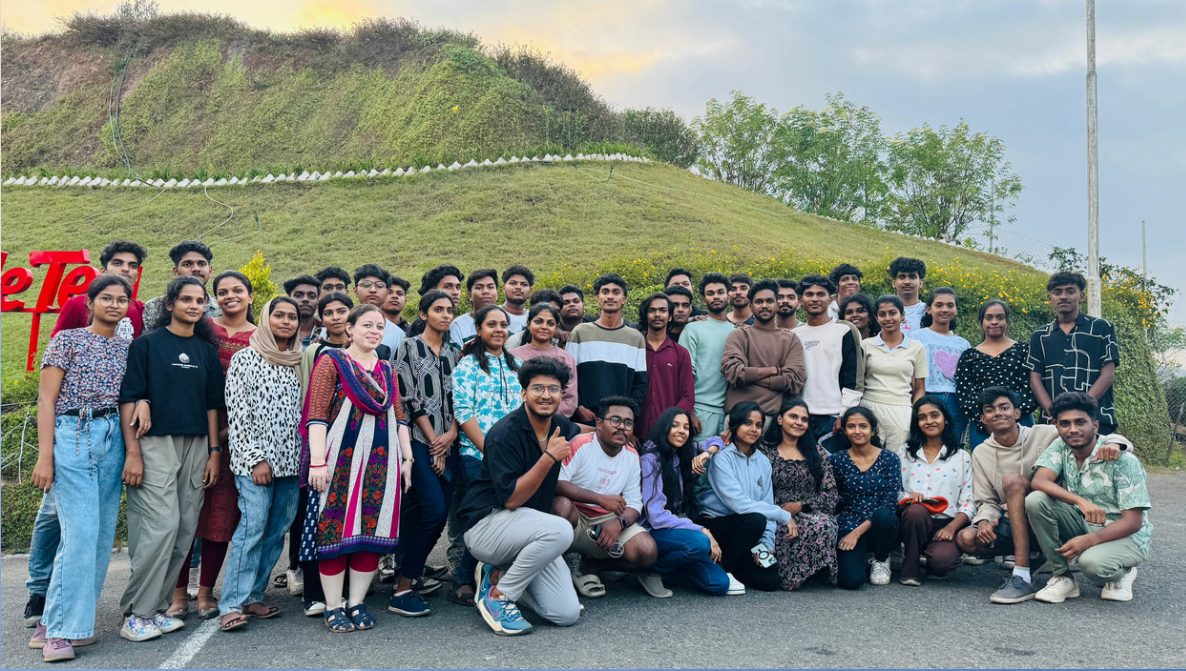
## INDUSTRIAL VISIT AT TECHNOPARK, TVM



industry visit organized by Srishti Innovatives to Technopark Trivandrum was quite enjoyable and informative. Visiting various industries like Tata must have provided valuable insights into different sectors. Exploring the sights and places within Technopark likely added to the overall experience. Students had a great time visiting the various industries at technopark ,Tvm



# A Trip To Munnar



Exploring Munnar and visiting different places during our college tour have been both educational and enjoyable. The diverse landscapes and cultural attractions in Munnar can provide valuable insights and memorable experiences. Learning about the local history, environment, and community engagement opportunities can enhance our understanding of the region and complement your academic journey. Overall, it was a fantastic opportunity to broaden our horizons and create lasting memories.

Munnar is situated at the confluence of three mountain streams – Muthirapuzha, Nallathanni and Kundala – and the word 'Munnar' means three rivers in Malayalam. Situated about 1600m above sea level, the hill station had been the summer resort of the British Government during the colonial era.



# Sport's Day



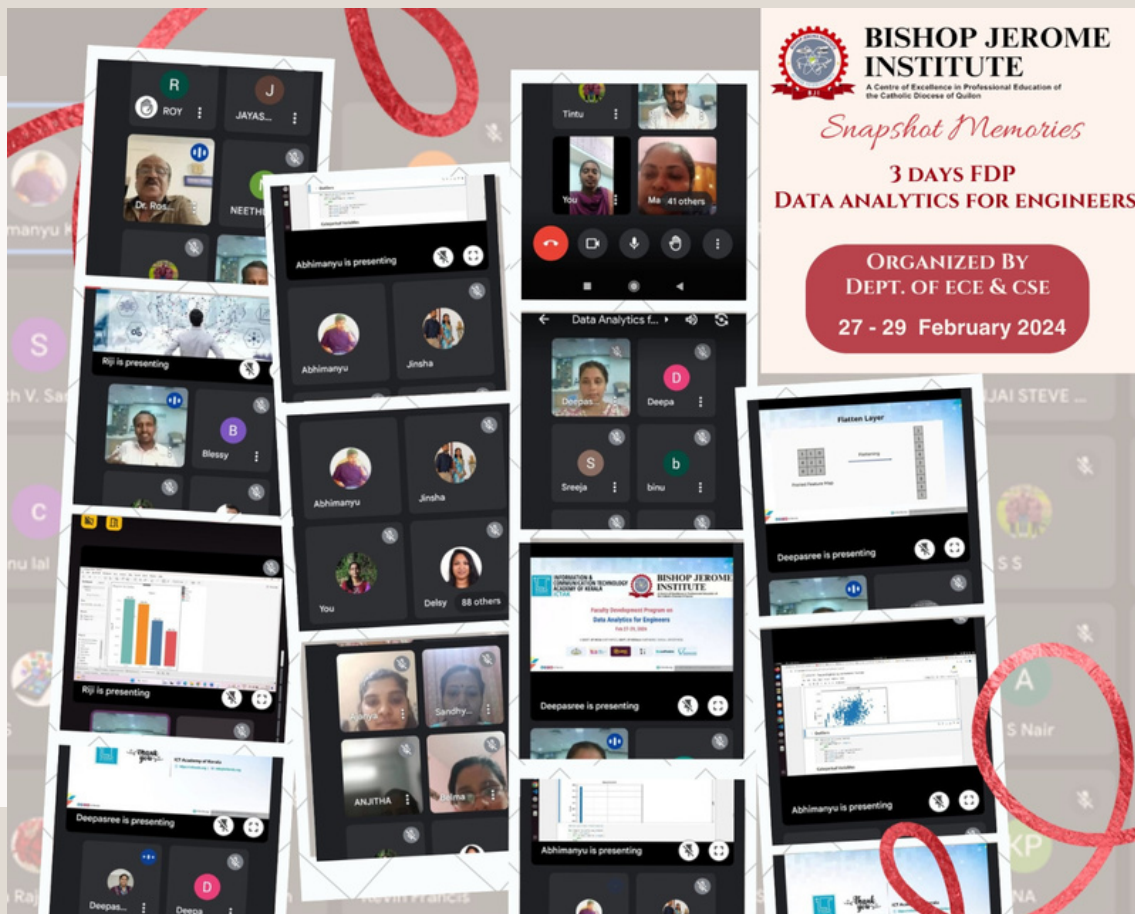
28 February 2024 was celebrated as the Sports Day of our college where the students of our department (CS) actively participated in various events. Heleena from S2 CSE secured the III place in the 100m race, and our team also achieved III place in the relay competition. It was a well-spent day.

CONGRATULATIONS, DEAR WINNERS AND PARTICIPANTS!

CS&DS combined together and formed a New football team and we are happy to play our first match on







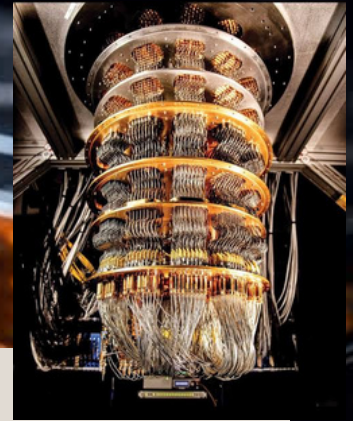
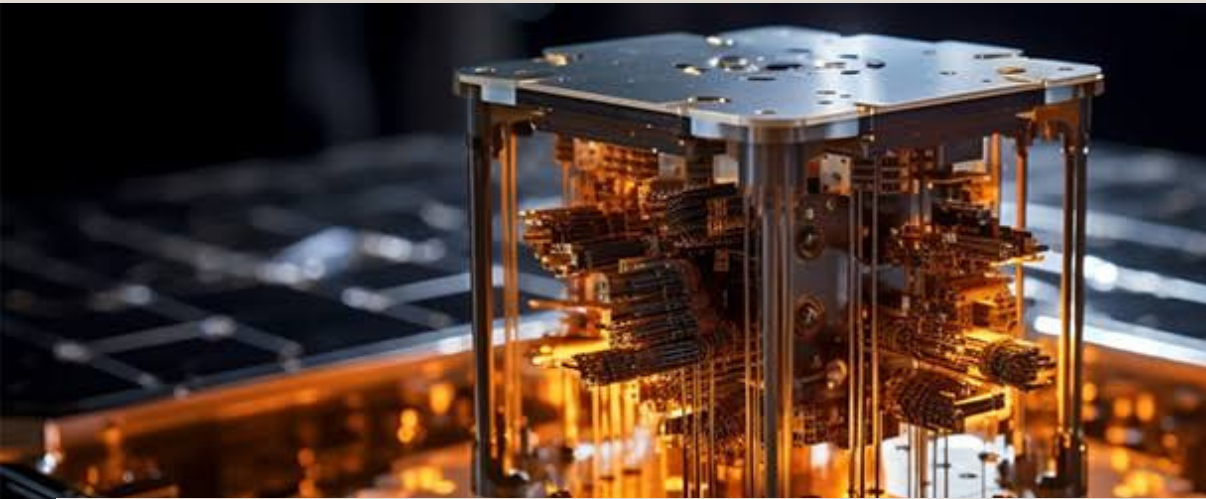
The three-day Faculty Development Program (FDP) on 'Data Analytics for Engineers' was conducted online, jointly organized by the Departments of Computer Science and Engineering (CSE) & Electronics and Communication Engineering (ECE), in collaboration with ICT Academy, Kerala. We were delighted to have 108 participants, including faculty, research scholars, and industrialists from various esteemed institutions across the country. We extend our sincere thanks to the Management, Principal, Vice-Principal, Deans, Department Heads, participants from other departments, and Staff members of the CSE and ECE departments for their invaluable contributions and support

## What is Computer Engineering?

Computer engineering is a field that encompasses the design, development, and maintenance of computer hardware and software systems. It combines elements of both electrical engineering and computer science to create innovative solutions to complex problems. Computer engineers work on a wide range of technologies, from microprocessors and embedded systems to network infrastructure and software applications. Their expertise is crucial in advancing technology in areas such as artificial intelligence, cybersecurity, and the Internet of Things (IoT). Overall, computer engineering plays a vital role in shaping the digital world we live in today and driving future technological advancements.

**-Madhav G Cheriya , Student CSE S2**





## **.Harness the power of quantum technology**

Quantum computers leverage principles of quantum mechanics to perform computations. Unlike classical computers, which use bits to represent 0s and 1s, quantum computers use qubits that can exist in multiple states simultaneously, known as superposition. This enables them to process information in parallel, potentially solving certain problems much faster than classical computers.

### **Key concepts:**

1. **\*Qubits:\*** Basic units of quantum information.
2. **\*Superposition:\*** Qubits can exist in multiple states simultaneously.
3. **\*Entanglement:\*** Qubits can be entangled, meaning the state of one qubit is directly related to the state of another, regardless of the distance between them.
4. **\*Quantum gates:\*** Analogous to classical logic gates, these manipulate qubits.

### **Challenges:**

1. **\*Decoherence:\*** Qubits are fragile and can lose their quantum properties due to interference from their environment.
2. **\*Error correction:\*** Quantum error correction is crucial due to the inherent susceptibility to errors.

### **Applications:**

1. **\*Cryptography:\*** Quantum computers could break certain encryption algorithms, driving the need for quantum-resistant cryptography.
2. **\*Optimization problems:\*** Quantum computers excel at solving complex optimization problems.
3. **\*Drug discovery:\*** Quantum computers can simulate molecular interactions, aiding in drug discovery.

Companies like IBM, Google, and startups like Rigetti Computing and D-Wave are actively working on quantum computing research and development. Quantum supremacy, the point at which a quantum computer outperforms the most powerful classical computers, has been achieved in certain tasks, but practical quantum computing for general use is still in the early stages.

**-Abhay S Rajeev , Student CSE S1**

## STUDENTS ACHIVEMENTS

GAYATHRI S Student of S1 DS has successfully attended a workshop on branding and marketing at the national level event start up X2023 organized by IEEE held on November 18 and 19



Nabeel shajahan Student of S1 DS has attended one day workshop on Cyber security and Ethical Hacking organized by Techmaghi in association with Tryst24 IIT Delhi on 25-11-2023



DURGA SUGATHAN Student of S1 DS has successfully attended a workshop on branding and marketing at the national level event start up X2023 organized by IEEE held on November 18 and 19



PRANAV JINU Student of S1 CS has successfully attended a workshop on branding and marketing at the national level event start up X2023 organized by IEEE held on November 18 and 19



Gouri Lekshmi Student of S1 DS has attended one day workshop on Cyber security and Ethical Hacking organized by Techmaghi in association with Tryst24 IIT Delhi on 25-11-2023



Aiswarya.A Student of S1 DS has attended one day workshop on Cyber security and Ethical Hacking organized by Techmaghi in association with Tryst24 IIT Delhi on 25-11-2023



Gouri Lekshmi for participating in the workshop 'AI for Students: Build Your Own Generative AI Model' conducted by AI expert and IIT Delhi alumnus, Mr. Trivikrama. The workshop is designed to equip students with skills essential in the AI era.



Aiswarya.A for participating in the workshop 'AI for Students: Build Your Own Generative AI Model' conducted by AI expert and IIT Delhi alumnus, Mr. Trivikrama. The workshop is designed to equip students with skills essential in the AI era.



Sidharth Seeju Student of S2 DataCS has successfully attended a workshop on branding and marketing at the national level event start up X2023 organized by IEEE held on November 18 and 19

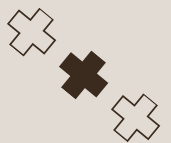


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